Electronic Supplementary Material (ESI) for Nanoscale Horizons.

Nanofluidic sensing platform based on robust and flexible graphene oxide/chitosan nanochannel membranes for detection of glucose and urea

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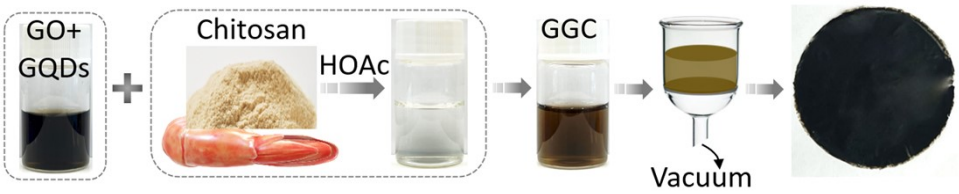
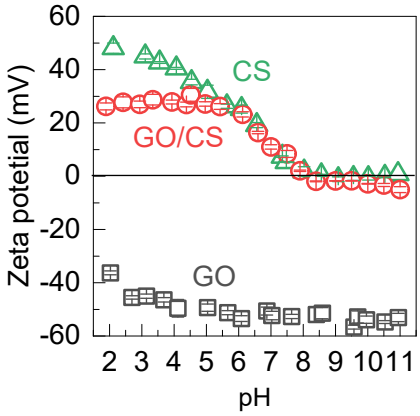
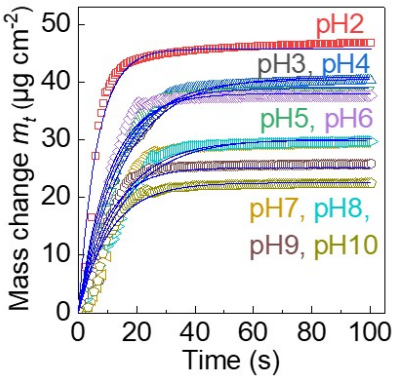


Supplementary Figure 1. A sketch of the preparation procedure of GGC membranes.

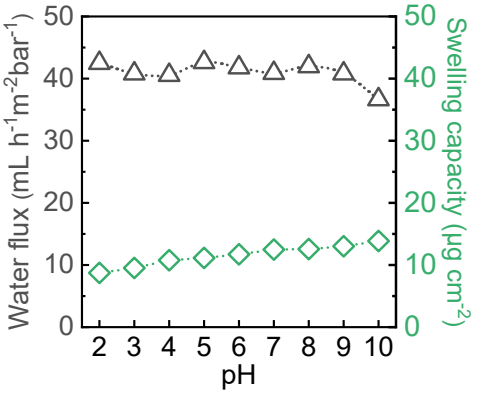


Supplementary Figure 2. Zeta potential of GO (0.1 mg mL^{-1}), CS (0.1 mg mL^{-1}) and GO/CS_5 (0.1 mg mL^{-1}) dispersion at different pH.

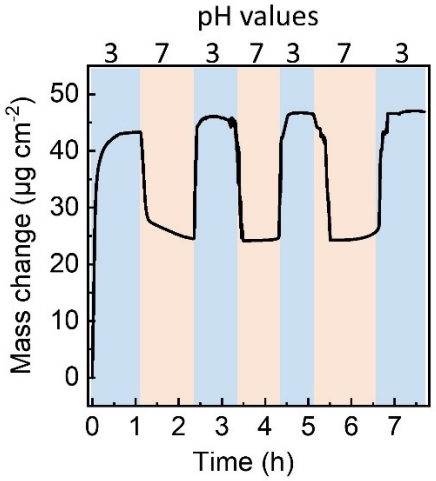
Supplementary Figure 3. A transparent and robust large-scale GGC_5 membrane, diameter: 8 cm.



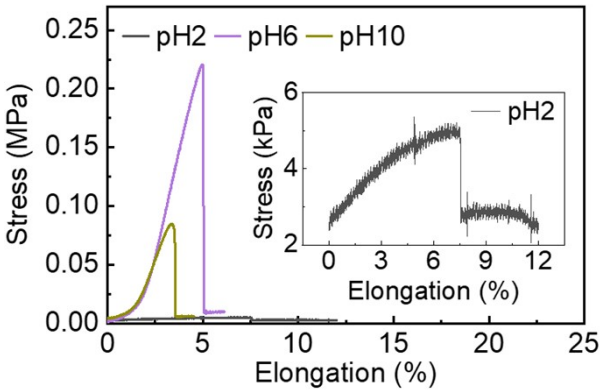
Supplementary Figure 4. Swelling curves of GGC_5 membrane under different pH of water measured by QCM. A Voigt model is used for fitting.



Supplementary Figure 5. Water permeance and swelling capacity of a pristine GO membrane as a function of water pH.



Supplementary Figure 6. Cyclic QCM curve for GGC_5 membrane.



Supplementary Figure 7. Stress-strain curves of GGC membrane immersed in DI water with different pH. Insert data: a magnified stress-strain curve of GGC membrane in pH2 water. Inset image: a digital photo of a robust GGC membrane at pH 10, scale bar: 2 mm.